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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention transmits the data of a body measuring device or a training apparatus to a server using the Internet, and relates to the health care system which can carry out a user's health care.

[0002]

[Description of the Prior Art]Generally various apparatus for the health care appears on the market, and those who measure weight, blood pressure, body temperature, etc. individually, respectively, and attach record are also increasing in number. Various training apparatus for the health care is purchased, and those who are training at the house are also increasing in number. Many of such people form a target beforehand, they train so that the target may be cleared, and they are made to check the effect with the scale, a body-fat scale, etc.

[0003]

[Problem(s) to be Solved by the Invention]By the way, there were the following issues which should be solved in the above Prior arts. Generally, their weight, management of blood pressure, etc. made the periodic medical examination the subject, and individual name measured value is used for the reference grade. In the case of training apparatus, he performs training doubled with its physical strength in the way written in the description of apparatus, and is trying to record the result on it on the other hand. In the training gym in which a special adviser resides permanently, or an athletics club, exact advice the directions for such apparatus and what training should be performed can be received.

[0004]However, when purchasing and using such apparatus individually, it is difficult to form a suitable target, and the result cannot be evaluated correctly, either. There are some persons who arrange the record meticulously and save it, and there is a person who hardly saves. Therefore, the standard of the health care became indefinite and there was a problem that sufficient effect was not acquired. When the result was unclear, interest was lost and there was also a problem said that it will stop using the apparatus purchased with much trouble.

[0005]For example, the result of body measurement is sent to the center in which a

medical practitioner resides permanently through the Internet, and the health-care method of receiving advice is also known. However, in order to receive advice, expenses of a big-ticket fee etc. are required for such a method, and are not necessarily common. An object of this invention is to provide the health care system which can keep the result of body measurement, and record of training instead of a user, and can arrange and display the history in a legible form, for example, can feed back the thing in comparison with standard data.

[0006]

[Means for Solving the Problem] This invention adopts the next composition in order to solve the above point.

<Composition 1> A data input means for inputting a user's health-care information, A transmitting means which transmits inputted health-care information to a server from a terminal unit by the side of a user, A health care system provided with a database which accumulates the above-mentioned health-care information which a server received with the above-mentioned user's identification data, and an information reply means which replies the above-mentioned user's health-care information accumulated with reference to the above-mentioned database to the above-mentioned terminal unit.

[0007]<Composition 2> Health care system, wherein the above-mentioned data input means changes from a browser which peruses a web page for data input which the above-mentioned server provides to the composition 1 in a health care system of a statement.

[0008]<Composition 3> Health care system, wherein the above-mentioned data input means comprises an e-mail transceiver program which generates mail including the above-mentioned health-care information, and is transmitted to the above-mentioned server in a health care system given in the composition 1.

[0009]<Composition 4> Health care system, wherein the above-mentioned data input means comprises a file transceiver program which generates a file including the above-mentioned health-care information, and is transmitted to the above-mentioned server in a health care system given in the composition 1.

[0010]<Composition 5> Health care system, wherein the above-mentioned health-care information contains in the composition 1 measurement data which a body measuring device measured in a health care system of a statement.

[0011]<Composition 6> Health care system, wherein the above-mentioned health-care information contains record data of a user's training apparatus in the composition 1 in a health care system of a statement.

[0012]<Composition 7> Health care system, wherein the above-mentioned information reply means extracts the above-mentioned user's health-care information accumulated in the above-mentioned database and replies it to a terminal unit by the side of a user with comparison information in a health care system given in the composition 1.

[0013]

[Embodiment of the Invention] Hereafter, an embodiment of the invention is described using an example. Drawing 1 is a block diagram showing the example of the system of this invention. The user 1 who shows in a figure is connecting the terminal units 2, such as a personal computer, to the server 4 through the network 3, in order to ask for health-care service by the system of this invention. The server 4 is installed in the service company etc. which provide this kind of service. The user 1 owns the scale 5 for measuring weight at a house, for example, and the walking machine 6 for training. The

measurement data of this scale 5 and the record data of the walking machine 6 are inputted into the terminal unit 2. The terminal unit 2 transmits the inputted data to the server 4.

[0014]In order to realize such a function, the interface 9 which takes in the measurement data of the scale 5 and the record data of the walking machine 6 with an electrical signal as it is formed in the terminal unit 2. Of course, even if the user 1 inputs into the terminal unit 2 the result of having measured the scale 5, using a keyboard or a mouse, it does not interfere. In this way, in order to transmit the data inputted into the terminal unit 2 to the server 4, the data input means 7 and the communication control part 8 are formed. In order to explain easily, the terminal unit 2 and the server 4 took out and displayed functional blocks with the main inside on the exterior of the outline view of a device, as shown in a figure.

[0015]The data input means 7 consists of browsers etc., for example, and acquires and peruses the web page for health-care information inputting from the server 4. The data inputted into this web page through the interface 9 is posted. In carrying out the manual entry of the data, it writes in immediate data into this web page. The communication control part 8 consists of a modem etc. which transmit and receive data between the servers 4 through a network.

[0016]The memory storage 11, the information reply means 14, and the authentication means 15 are formed in the server 4. The database 12 and the standard data 13 are memorized in the memory storage 11. The database 12 stores the data which uses such a health care system, for example and which recorded the user's identification data and health-care information for every user. Based on this, the history of the health care, etc. are displayed in the way explained later. The standard data 13 is standard data for health care, and is the sample information prepared in order that the user 1 might compare with the health-care information on self.

[0017]The information reply means 14 is a portion with the function which picks out the measurement data which the record data of a user's training apparatus and a body measuring device measured from the database 12, graph-izes the history, or is edited in accordance with comparison information etc., and is replied to the terminal unit 2. As for this kind of service, it is common to be provided for the user who did membership registration for pay. The authentication means 15 is a portion which performs processing which judges whether the server 4 was accessed by those who did membership registration. The above-mentioned information reply means 14 and the authentication means 15 comprise a computer program etc. which operate on a server.

[0018]In the system of above this inventions of composition, the record data of training apparatus, such as measurement data of body measuring devices, such as the scale, and the walking machine 6, by the user 1 is inputted into a web page by the data input means 7, and is sent to the server 4 by processing of the communication control part 8. Such health-care information is accumulated in the database 12 of the server 4. And if the user 1 operates the terminal unit 2, for example, the history display of the past fixed time is required, out of the database 12, the data of an applicable period will be extracted and the history and standard data 13 for comparison will be replied to the terminal unit 2 by the information reply means 14.

[0019]The history of the past health-care information is displayed on the indicator of the terminal unit 2 in a legible form, for example by an easy table and graph. A display may

be displayed on the indicator 6A of training apparatus, such as the walking machine 6 connected with the terminal unit 2. It is displayed in the form which self-valuation tends to carry out by comparison with standard data or others' data. Thereby, by oneself, the user needs to accumulate health-care information or does not need to arrange it. It becomes possible to form a suitable target in accordance with a fixed standard, and to evaluate the result by offer of standard data correctly. As compared with other members' result, it becomes possible to carry out the health care very enthusiastically. For example, what demands cautions from a user can be performed about an extreme weight change. [0020] Various things other than the scale, such as pulsometer, a sphygmomanometer, and a body-fat scale, are widely marketed by the body measuring device. It does not interfere, even if it uses any. a training apparatus -- everything but a walking machine -- a muscle training device, the device for a workout, etc. -- marketing -- now, it is. In the case of a walking machine, the digital data what step to have walked between fixed time is obtained. In movement using an array, it is good to count the number of times by oneself, and to input into the terminal unit 2. For example, if weight, a pulse, blood pressure, etc. are measured and this measurement data is transmitted to a server after using a walking machine etc., it will also become possible to receive a medical practitioner's diagnosis if needed.

[0021] A virtual fitness club can be made by registering and managing a majority of such users. In that case, a display displays other users' using state by the animation of virtual space, etc. using the indicator 6A of training apparatus, such as the walking machine 6 connected with the terminal unit 2. If it enables it to perform communication with a sound using voice input/output furthermore, a member will get environment same with training very cheaply in the state of having been at home in the fitness club. Fixed handicap NITI is formed of membership registration, and a member's participation condition, the situation of training of a member, etc. can be exhibited using a web page. By exchanging information with both members, it is possible to become encouragement of a diet etc. Furthermore by the server side, the data which is worthier to a user can be provided by classifying data and, for example, carrying out grouping of comparison object data or the user in consideration of a user's form, sex, age, an occupation, and the purposes (a diet, muscular power strengthening, etc.).

[0022] a user -- the person himself/herself -- the information on except is good to introduce for example, using a handle, sex, age, an occupation, address, etc. The communication which used the chat and the bulletin board on the server 4 using it is also possible. In the above-mentioned example, although the terminal unit 2 was used as the personal computer, if a portable telephone is used for a terminal unit, it will also become possible to transmit the data of training in outdoors, pedmeter (registered trademark), etc. to a server directly. It is a very effective method at the point of not leaking and managing data, and this is almost impossible, when managing only with its own personal computer. The system which carries out data transmission to a server by easy operation, and can manage the data can be said to the old man who cannot operate a personal computer by himself as a very convenient thing.

[0023] Concrete operation of the system of this invention is explained using a flow chart below. Drawing 2 is a flow chart of the operation which carries out new registration of the user of the above systems to a server. This new registration connects to the server 4 the terminal unit 2 shown in drawing 1, and is performed. The authentication means 15 of

the server 4 performs registration processing. In performing new registration, it displays the web page for user registrations on the terminal unit 2.

[0024]Drawing 3 (a) is an example of a screen for a user's new registration, and drawing 3 (b) is an example explanatory view of a member data table. A user name, a date of birth, sex, height, a login name, a password, etc. can be entered by using the frames 51-57 of this screen. A click of the registering button 58 will transmit and register the inputted data into the server 4. At this time, the identification data (IDNO) of the user who shows drawing 3 (b) is generated and added.

[0025]Again, it returns to drawing 2 and data input, such as a user name, is carried out using the above-mentioned screen at Step S1, and if the registering button 58 is clicked at Step S2 and data is transmitted to the server 4, the authentication means 15 of the server 4 will attest user data at Step S3. S5, Step S10, and 11 are processings by the side of a server from Step S3 of drawing 2. In Step S3, it is judged whether the registration data of the same user name exists. It is for preventing double registration.

[0026]If there is no user of the same data, the user data inputted by progressing to step S4 will be registered. And in Step S5, the contents of registration are transmitted to the terminal unit 2, and it asks for a user's check. On the other hand, when there is a user of the same data, registration improper error handling is performed in Step S10. The message of the purport that this data is already registered is specifically generated, and that message is transmitted to the terminal unit 2 at Step S11. In this way, a user is notified of registration being impossible. The user should just reconfirm this.

[0027]In Step S6, the contents of registration are displayed on the terminal unit 2, and a user checks the contents of registration data. When the contents have an error, it returns from Step S7 to Step S1, and input data is corrected. The content confirmation in registration is completed, and if a user judges that there is no error in the contents, it will progress to Step S8 from Step S7. Here, a user clicks the registering button 58 (drawing 3) again. In the server 4, new registration processing is completed in response to this notice (step S9). The authentication means 15 is this stage and registers new registration data into the database 12 (drawing 1).

[0028]Drawing 4 is a flow chart of the operation which transmits the measurement data which performed measurement of body weight to a server. The explanatory view in which (a) of drawing 5 shows the example of a screen for authenticating processings, and (b) are the explanatory views showing the operation screen for an input by measurement. First, the user data for attestation is inputted in Step S21. That is, authenticating processing is performed for the registered judgment of being the member. The screen for the authenticating processings of drawing 5 (a) is used for this. On an attestation screen, a login name is inputted into the frame 21 and a password is entered into the frame 22. If the transmission button 23 is clicked, a login name and a password will be transmitted to a server and attestation will be performed. A click of the clear button 24 will clear the login name and password which were entered. A click of the new registration button 25 will display the new registration screen already explained using drawing 3 (a).

[0029]For registration of the measurement result of weight, weight is measured and the measurement data is inputted into the terminal unit 2 this time (Step S22). Here, a click of the above-mentioned transmission button 23 will transmit the data inputted into the attestation screen shown in drawing 5 (a) to the server 4. The authentication means 15 of the server 4 attests user data with reference to the database 12 (Step S24). If attestation

ends, registration processing to the database 12 will be performed. At this time, the operation screen shown in drawing 5 (b) is transmitted from the server 4 to the terminal unit 2. This screen is displayed on a user's terminal unit 2. The data entry operations in measurement of body weight here were concretely displayed on step S25-1 of drawing 4 - 25-4.

[0030]The data inputting processing of measurement of body weight is chosen by introduction and the menu screen which is not illustrated (drawing 4 step S25-1). In this way, the operation screen for an input is displayed by the measurement of body weight of drawing 5 (b) (drawing 4 step S25-2). The user is demanding the comparison display of a measurement-of-body-weight entry of data, and the history of that measurement result and a standard value using the check box 20 of this screen. The period which takes out a history is inputted into the frame 26. The desired value of concrete weight is inputted into the frame 27. If this desired value is already registered into the database 12 of the server 4, this data will be displayed automatically. Sex, age, height, etc. are inputted into a user name, the frame 29, the frame 30, and the frame 31 at the frame 28. This is already registered into the database 12 of the server 4, and it is displayed automatically. If measurement of body weight is performed last time, the date which transmitted the data to the server will be automatically displayed on the frame 32. Similarly, the last measurement-of-body-weight value is displayed on the frame 33.

[0031]And this measurement-of-body-weight data is inputted into the frame 34 (drawing 4 step S25-3). A user performs this alter operation using the keyboard of a terminal unit, for example. Or the data inputted into the terminal unit 2 via the interface 9 from the scale 5 is posted. A click of the transmission button 35 will transmit the data inputted using the operation screen to the server 4 (drawing 4 step S25-4). If the clear button 36 is clicked, the inputted data will be cleared and reinput of data will be attained.

[0032]In the server 4 which received data, the inputted data of weight is registered to the data of the applicable user in the database 12. In this way, a user's health-care information is accumulated in the database 12 by operating various body measuring devices and training apparatus, where the terminal unit 2 is connected to the server 4, and transmitting the acquired data to the server 4. At Step S26, a user is notified of the message which registration completed. This message is displayed on the terminal unit 2.

[0033](a) of drawing 6 is a weight data explanatory view for every member, and (b) is a contents explanatory view of standard data. Drawing 7 is a measurement result display screen explanatory view. By the above processings, a measurement date, measuring times, and weight are registered with each member's identification data. Here, the above-mentioned example required the display of the measurement result for January [past] in the operation screen of drawing 5. In this case, a screen as shown in drawing 7 is displayed on the terminal 2 by the registration completion display of Step S27 of drawing 4. A user name is displayed on the frame 41 shown in a figure, and sex, age, and height are displayed on the frames 42, 43, and 44. The last measurement date and weight are displayed on the frame 45 and the frame 46. And change of the weight for one month is shown by the line graph with the graph 47. Here, the level of a desired value or a standard value is also displayed. For example, if the comment by the doctor in attendance or an adviser is displayed, the user can do the health care according to the result.

[0034]For example, if many members' data and other statistical datas are accumulated, in consideration of a user's age and sex, and height with a demand, standard data is

generable. It is the example which was shown in drawing 6 (b), and it is written in the graph 47 of the above [the standard data according to a generation]. In Step S24 of drawing 4, when it is judged that the authentication means 15 is not the demand from a member, it progresses to Step S28, the error message of the purport that attestation is impossible is created, and the message is transmitted to the terminal unit 2 in Step S29. In Step S30, the display of the purport that attestation went wrong is made by the terminal unit 2, and processing is completed.

[0035]Drawing 8 is a processing operation flow chart for a user to use the accumulated health-care information widely. In this example, each user's health-care information accumulated in the database 12 of the server 4 is extracted, and the example replied to the terminal unit by the side of a user with comparison information is explained. If the data of other members who are performing management of weight, etc. for the same purpose can refer to it mutually, since a sense of rivalry and a target are made, respectively, the effect that the effect of training increases is expectable. In this case, others' data is expressed not as a personal name but as suitable nickname. Public presentation of raw data is attained protecting mutual privacy now.

[0036]First, in Step S31 of drawing 8, the user data for attestation is inputted like processing of Step S21 of drawing 4. The input screen is the same as that of what was shown in drawing 5 (a). Here, the user data for attestation is transmitted to the server 4 from the terminal unit 2 (Step S32). In Step S33, authenticating processing of user data is performed in the server 4. The explanation which overlaps since processing when this processing and attestation are improper is the same with having already explained using drawing 4 is omitted (Step S40, 41, 42).

[0037]Drawing 9 is an example explanatory view of a screen on which a search condition is inputted into and predetermined data is displayed. An operation screen as shown in the figure which chooses the data which you want to display is displayed on the terminal unit 2 (drawing 8 step S34). This user is registering weight, height, the girth of the chest, the waist, and vital capacity for one year. A walking machine, an array, and skipping rope were used for training, and the record data is registered. A server extracts automatically the columns 61-64 of a user name, sex, age, and height from a database, and displays them. A search condition is inputted into the columns 65 and 66. A display period is inputted into the column 67. In this example, the comparison display of the change of the weight of the member who uses the walking machine during June [past] is carried out.

[0038]If the transmission button 68 is clicked, this demand will be transmitted to the server 4 (drawing 8 step S35). If the clear button 69 is clicked, the inputted contents will be cleared and another retrieval required will become possible. In Step S36 of drawing 8, search of a database is performed by the information reply means 14 by the server 4. Next, edit by the extraction is performed (Step S37). The data is transmitted to a user's terminal unit 2 after edit. The result is expressed to the terminal unit 2 as Step S39.

[0039]Drawing 10 is an explanatory view about a comparative example with other concrete members. As shown in this figure, the weight change of the member who uses a walking machine is displayed so that it can compare with the thing of the person himself/herself and the average value of other members or other members. Change of weight is a line graph and the record data of the walking machine is displayed with the bar graph. It is possible to carry out a comparison display by various methods from various angles, such as change of not only a weight change but the waist and change of

vital capacity.

[0040] Although a user does membership registration, uses the database of a server, registers the measurement data of body measuring devices, such as the scale, and the record data of a training apparatus and was made to do output displaying of the history in the above-mentioned example, a user's registration method is arbitrary. The kind of data registered into a database is also arbitrary. Of course, the structure of a database of the method of presentation of search results may also be arbitrary.

[0041] A respectively separate program module may constitute the program which performs processing shown in each flow chart, and the unified program module may constitute it. All or a part of these functions may consist of hardwares by a logic circuit. Each program module may be included in the existing application program, may be operated, and may be operated as an independent program. The above computer programs can be recorded, installed and used for the recording medium which can be read, for example by computer like CD-ROM.

[0042]

[Effect of the Invention] With as mentioned above, a user's past table and graph of health-care information with a history easy, for example. If it is displayed in a legible form and displayed in the form which self-valuation tends to carry out by comparison with standard data or others' data, it is effective in the user accumulating health-care information or not arranging it by oneself. It becomes possible to form a suitable target in accordance with a fixed standard, and to evaluate the result by offer of standard data correctly. As compared with other members' result, it becomes possible to carry out the health care very enthusiastically.

[Translation done.]